

PSAT: Industry Standard Modeling Software for Vehicle Design



Argonne National Laboratory's Powertrain System Analysis Toolkit (PSAT) is a state-of-the-art flexible and reusable simulation package that allows vehicle designers to assess the fuel displacement potential of advanced vehicles such as hybrids and plug-in hybrids. Developed by engineers Aymeric Rousseau, Phillip Sharer, and Sylvain Pagerit, PSAT is designed to be a single tool that can be used throughout the vehicle development process, from model development to hardware implementation.

The U.S. Department of Energy uses PSAT as its primary vehicle simulation tool. PSAT received an R&D 100 Award in 2004. Since its introduction, PSAT has been licensed to more than 130 companies and 750 users worldwide.

"PSAT provides accurate performance and fuel economy simulations, allowing vehicle manufacturers and their suppliers to select appropriate advanced technologies in order to bring them more quickly to the market in improved hybrid vehicle systems," said Rousseau, PSAT's principal developer. "Engineers needed a model that was intuitive, easy to use, and provided accurate results. PSAT has given them that."